

Remarks

Claims 47-73 are pending in the subject application. By this Amendment, Applicants have canceled claims 50-52, 55, and 60-73, amended claims 47-49, 53, and 54, and added claims 74-90. Support for the amendments can be found throughout the subject specification and in the claims as originally filed (*e.g.*, previously presented original claims 1-46, previously presented claims 47-73 and page 80, line 21 through page 83, line 30). Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 47-49, 53, 54, 56-59, and 74-90 are currently before the Examiner. Favorable consideration of the pending claims is respectfully requested.

As an initial matter, Applicants gratefully acknowledge the Examiner's indication that claims 51, 56-58, and 63-65 are objected to but would be allowable if rewritten into independent form to include the limitations of any base and intervening claims. Applicants have rewritten the claims to conform to the Examiner's suggestion and allowance of the subject application is respectfully requested.

The disclosure is objected to because of informalities. Applicants respectfully assert the subject specification has been amended at page 161, line 5, in accordance with the Examiner's suggestion. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Figure 5 is objected to because nucleic acid sequences are shown without including a corresponding SEQ ID NO. A Submission of Sequence Listing and Statement Under §1.821, including a replacement sequence listing on CD-ROM and a computer readable format is attached. In addition, Applicants have amended Figure 5 to include the SEQ ID NO: for the sequences shown therein. Applicants also submit the necessary additional paragraph for the Specification has been updated in the specification at page 1. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Figure 8 is objected to because numerals 270 and 278 are not discussed in the subject specification. Applicants have amended the subject specification at page 164, line 11, to provide a description of numeral 270. Support for this amendment can be found, for example, in Figure 8, in which the same symbol is used for numeral 264. By this Amendment, Applicants have attached a

replacement Figure 8 which deletes reference to numeral 278. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Claim 57 is objected to because of informalities. The Examiner indicates that “comprises comprising” should be changed. Applicants gratefully acknowledge the Examiner’s careful review of the claims. In accordance with the Examiner’s suggestion, Applicants have deleted the word “comprising” in claims 57 and 64. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Claims 49, 50, and 52 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite in the recitation of “said polypeptide and “said signal sequence”. Applicants respectfully assert that the claims as filed are definite. However, by this Amendment, claims 50 and 52 have been canceled, thereby rendering the rejection of these claims moot. Claim 49 and independent claim 47 have been rewritten in a fashion that, likewise, renders this issue moot. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Claims 47 and 48 are rejected under 35 U.S.C. § 102(a) as anticipated by GenBank Accession No. AI138881 (October 28, 1998). Applicants respectfully submit that the cited reference fails to anticipate the claimed invention. For example, the reference fails to teach nucleic acid sequence encoding a signal peptide comprising amino acids -17 to -1 of SEQ ID NO: 3903 fused in frame to the 5' end of a nucleic acid sequence encoding a polypeptide that is heterologous to a polypeptide comprising amino acids 1 to 103 of SEQ ID NO: 3903 or an isolated and purified nucleic acid sequence comprising nucleotides 53 to 511 of SEQ ID NO: 43. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(a) is respectfully requested.

Claims 47, 48, 53-55, 59-62, and 66-73 are rejected under 35 U.S.C. § 102(e) as anticipated by Ruben *et al.* (2003). Applicants respectfully assert that the reference does not anticipate the claimed invention as the reference fails to teach the limitations of the currently claimed invention. For example, the reference fails to teach nucleic acid sequence encoding a signal peptide comprising amino acids -17 to -1 of SEQ ID NO: 3903 fused in frame to the 5' end of a nucleic acid sequence encoding a polypeptide that is heterologous to a polypeptide comprising amino acids 1 to 103 of SEQ ID NO: 3903 or an isolated and purified nucleic acid sequence comprising nucleotides 53 to

511 of SEQ ID NO: 43. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

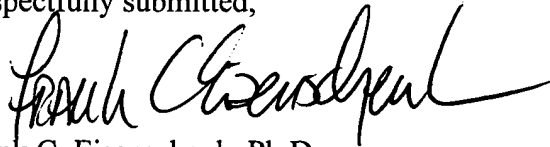
It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants' agreement with or acquiescence in the Examiner's position. Applicants expressly reserve the right to pursue the invention(s) disclosed in the subject application, including any subject matter canceled or not pursued during prosecution of the subject application, in a related application.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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Attachments: New Figure 5

New Figure 8

Submission of Sequence Listing and Statement Under §1.821

One copy of Sequence Listing on CD for Computer Readable Format